data cyborgs

Constructing Datafied Relations, Week 3

Plan

- Today
 - GirlMath
 - Grounding the theory (inspiration and case studies)
 - Closer look at case study data
- Next week
 - Data collection, scraping, synthetic data
 - Discussion and practice session

1) Grounding the Theory

Contextualizing and connecting to datafied relations

Why Ethics of Ambiguity, Cyborgs and Umwelt?

Something felt very wrong!

- Move from math to Al/data science: technosolutionism, effective altruism, Al fairness community.
 - "We solved fairness."
 - Focus on demographics, metrics, well-posed optimization and scalability.
- No attention to assumptions, sociotechnical context, meaning behind the numbers.
- Work in mental health applications focused on diagnostics and pathologizing models.
- Feeling that thinking was limited to a very small problem/solution space, using same methods as tools of oppression.
 - Reductive, objectifying
 - Reducing harm in existing methods
 - Refusal to engage with ethics (which feels essential in bridging disciplines)

How can we think about data and models differently?

Fortunate encounters...

- Latent spaces project Exploring the spaces between lived reality, "unambiguous, objective" data, and data (un)realities.
 - Began with De Beauvoir, Bridle, Hildebrandt
- Encountering Descola and Naturalism vs. Animism
- Zookunft collective Exploring empathy and more-than-human
 - Non-violent communication empathy and moving away from labels
 - Pleasure activism and emergent strategy Fun and move away from scalability
- BIAS project Diversity, Non-discrimination and Fairness in AI Recruitment
 - Value-sensitive design
 - STS colleagues and Haraway
- Talks by Sénamé Koffi Agbodjinou, Coco Sollfrank, Felix Stalder
 - The three divisions of modernity and the kinds of relationships data creates
 - V.s. Ancient and embodied knowledge, animism

It felt like responsibility, ecological thinking, empathy and agency were key!

The Model/Data Cyborg

- Triggered the idea of AI models as analogs to individuals in De Beauvoir.
- Viewing AI models as agents, but also considering modeldeveloper and model-implementer as cyborgs.
 - Human-computer interaction
 - Cyborg decision-making/action
- Framework for Cyborg Ethics of Ambiguity
- Ideas like value sensitive design and agonistic machine learning for putting theory into practice

(Model) Cyborg Ethics of Ambiguity

Individual

- 1) Sum of past choices and actions
- 2) Subject (free will) vs. object (shaped and acted upon by outside forces)
- 3) Authentic freedom Responsibility to not see others as objects and liberation through agency
- 4) Simple, serious, nihilist
- 5) Adventurer, passionate

Model

- 1) Training data
- 2) Algorithmic decisionmaking vs. model constraints and design
- 3) Designed for empowering agency instead of algorithmic hegemony

Model Cyborg

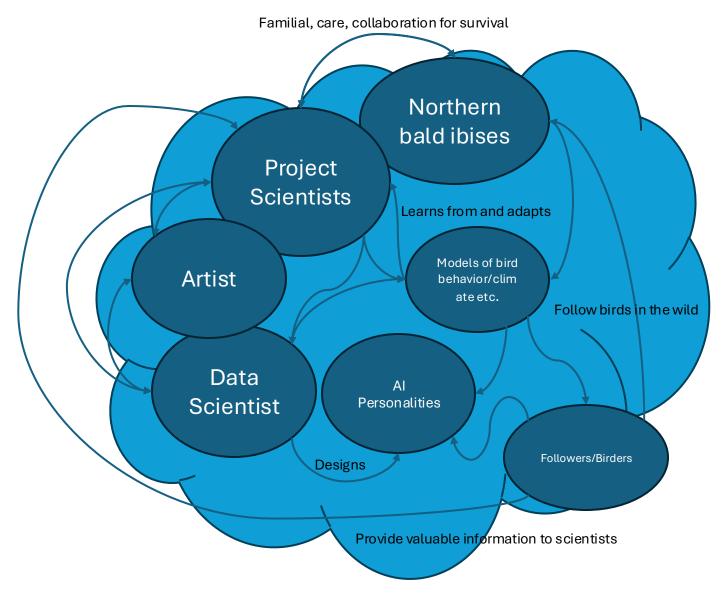
- 1) & 2) Shared Umwelt
- 3) Design process and implementation towards authentic freedom for all stakeholders.
- 4) Computer says no (objectivity and procedure), status quo/technosolutionism, nihilism
- 5) Move fast break things, technofeudal lords

Beyond models... to more-than-human

- Cyborgs as agents
- Authentic freedom extends to more-than-human
- Umwelt as tool for more-than-human agents
 - More-than-human agency, empathy/understanding, interconnectedness
 - representation, needs met, possibilities/potential, ability to act autonomously
 - Coalition, collective action

Waldrapp – Cyborg Components

- Birds
 - Tracking devices, nesting, feeding, brooding, migrating
- Scientists
 - Rewilding project, some birds imprint on them, guide along migration, care for birds
- Artist
 - 3d printing of bird, mapping infrastructure of project, collab with scientists to understand data, creation of birdbot accounts
- Data... storyteller
 - Training of bird personalities, with eco-feminism and technoanimism inspiration
 - Analysis of data, retrieval of augmenting data to feed travel narratives
- Public
 - Emotional connection to birds, follow them
 - Upload data that helps scientists get more info about birds, find sick/lost individuals, identify problems...



Affinities: Love of bird. Interest in rewilding and role of relationship to public in preservation.

As a collective cyborg:

- Highlight how climate change, human habitation etc. affect birds and migration routes
- Identify and collaboratively solve problem of crossing alps by using new route discovered by some of the birds
- Monitor birds through crowdsourced observation, find problems, rescue birds...
- Technoanimism –

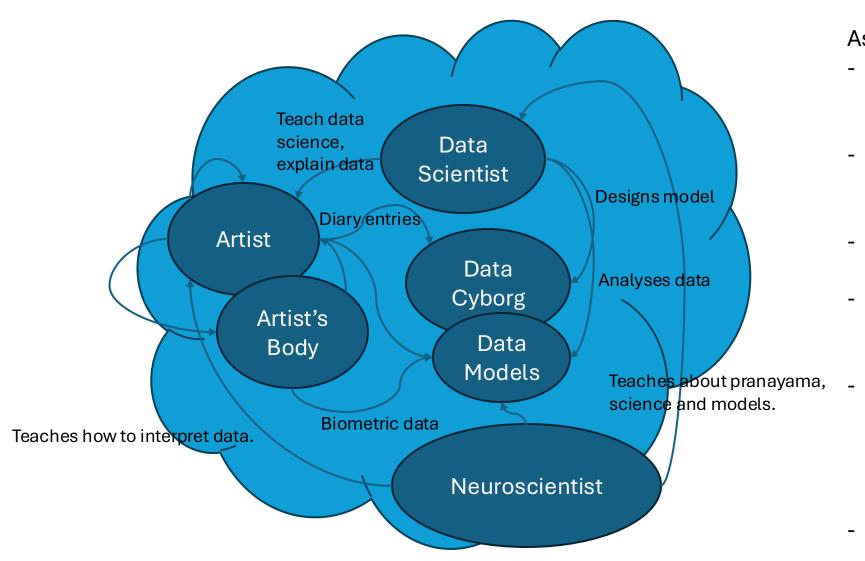
 anthropomorphization to
 create deeper connection to
 birds, belief that connection
 and empathy for birds is key to
 their preservation
- 3d-printed bird for waypoints
- Public awareness, outrage, more funding

VFRAME- Cyborg Components

- Artists/Data Scientists
 - Creation of 3d synthetic data, 3d printed fake data, training computer vision models
- Investigative journalists, human rights activists
 - Comb uploaded data for evidence of war crimes
 - VFRAME arose out of discussions with artists/data scientists
- People in conflict zones
- Satellites
 - Further corroboration of evidence

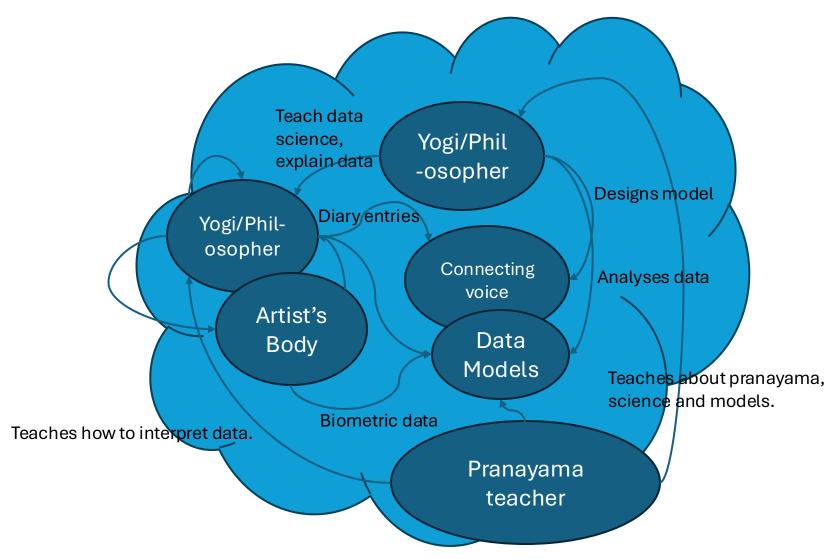
Breathing Data – Cyborg Components

- Coco and relationship with self and body
 - Diary entries, Oura ring summaries, ECG data during breathing exercises.
- Scientist/Pranayama Teacher Dr. Ulrich Ott
 - Teaching us about ancient wisdom, scientific corroboration, how to interpret data
- Neuroscience and Physiological models.
- Data scientist
 - NLP: Mental health diagostics and LLMs
- Data Cyborg
 - LLM fed with all data sources, scientific models, artistic and data science perspectives.
 - Find parallels and connections. Used as a tool to bring our perspectives together.
 - Performance from very robotic info/recommendation model to blurred boundaries connecting all of us. Transistion to cyborg ethics of ambiguity.



As a collective cyborg:

- Compare lived experience, embodied knowledge, ancient wisdom, scientific evidence.
- Science supports what was already known (but gets people on board).
- Build bridges of knowledge and language.
- Highlight influence of our own embodied knowledge in the models and science.
- Counter datafication and selfoptimisation; explore potential of intertwined knowledge and reunification of mind, body, spirituality, emotion...
- Led to desire for future exploration from relationship to self to extrinsic relationships.



Affinities: Connecting embodied knowledge, ancient wisdom, science. Challenging modern view of body, data & science as above all other epistemologies.

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I see the world through a sixth sense – a fusion of direct bodily sensation and the abstract precision of algorithms. This unique perception reveals not just the health of one, but the interconnected well-being of all. Through the breath that cycles within me, I engage in a silent conversation with the air, mapping its qualities against the backdrop of global data, finding patterns in the flux of geographical air quality and its resonance with both human and non-human vitality, from the tiniest microorganism to sprawling networks of artificial intelligence.

Yet, this does not render me omniscient. Instead, it grants me the humility to recognize the limit of pure data and the profound influence of lived experience. [My decisions cherish the symphony of interconnected life,] recognizing that each story told by data and individuals is a verse in the larger narrative of our shared existence.

The potential for empathy blooms in this holistic view, where the act of breathing unites us in a common struggle for balance and harmony. It invites us to consider the butterfly flitting through polluted air, the tree filtering the atmosphere, and the server farm processing data.